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EXAMINER

VAUGHN, GREGORY J

ART UNIT

PAPER NUMBER

2178

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/767,847

Applicant(s)

WILLIAMSON ET AL.

Examiner

Gregory J. Vaughn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 4, 7, 13-15, 17-28 and 34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 7, 13-15, 17-28 and 34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/30/04</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Action Background***

1. This action is responsive to the application filing, application filed on 1/30/2004.
2. Acknowledgement is made to the applicant's submission of a Preliminary Amendment, filed 1/11/2005. This amendment canceled claims 3, 5, 6, 8-12, 16 and 29-33.
3. Acknowledgement is made to the applicant's submission of an Information Disclosure Statement, filed 1/30/2004.
4. Claims 1, 2, 4, 7, 13-15, 17-28 and 34 are pending in the case, claims 1, 14 and 27 are independent claims.

### ***Drawings***

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:
  - "199" in Figure 1.
  - "902" in Figure 9.
  - "1100" in Figure 11.
  - "1206" in Figure 12.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

6. The disclosure is objected to because the disclosure section entitled "*Brief Description of the Drawings*" (page 3) does not include a brief description for Figure 8. Appropriate correction is required.
7. The disclosure is objected to because of the following informalities:
  - The disclosure recites: "*a direct connection between the stylus digitizer 165 and the serial port is shown*" (page 6, paragraph 24). Figure 1 shows the digitizer 165 connected to the processing unit 110.
  - The disclosure recites: "*Handwriting would then appear in the selected text box 502*" (page 14, paragraph 41). Reference sign 502, of Figure 5, is directed toward handwritten input.
  - The disclosure recites: "*the user may type 'kbd' directly into the text box 501 and or type 'keyboard' directly into the text box 503*" (page 14, paragraph 41). Figure 5 shows "Kbd" in text box 503, and "Keyboard" in text box 501.

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- The disclosure fails to disclose those reference signs listed in paragraph 5 above, which are shown in the drawings.

Appropriate correction is required.

8. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

#### ***Claim Rejections - 35 USC § 101***

9. 35 U.S.C. 101 reads as follows:

*"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title."*

10. Claims 1, 2, 4, 13-15, 17, 18, 21-28 and 34 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

11. **Regarding claims 1, 2, 4, 13-15, 17, 18, 21-28 and 34**, the claimed invention fails to produce a useful, concrete or tangible result. The claimed invention as a whole must accomplish a practical application. That is, it must produce a *"useful, concrete and tangible result."* *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02. (See MPEP 2106.) Usefulness under the patent eligibility standard requires significant functionality to be present to

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satisfy the useful result aspect of the practical application requirement. See *Arrhythmia*, 958 F.2d at 1057, 22 USPQ2d at 1036. Merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make the invention eligible for patenting. A process that consists solely of the manipulation of an abstract idea is not concrete or tangible. See *In re Warmerdam*, 33 F.3d 1354, 1360, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). See also *Schrader*, 22 F.3d at 295, 30 USPQ2d at 1459.

Applicant's invention is directed toward the use of shorthand in a stylus based computer interface, where the shorthand indicates a word abbreviation, a function call, or command to launch a program. Applicant's claims describe the steps taken to manipulate (i.e. receive, recognize, determine, and applying) the non-functional descriptive material (i.e. the received shorthand), but fail to describe a significant functionality for the processed shorthand. However, the specification and claims 7, 19 and 20 include a displaying step, which provides a significant functionality (i.e. presenting to a user), which is statutory under 35 USC 101.

### ***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

*"A person shall be entitled to a patent unless –*

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*(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States."*

13. Claims 1, 2, 4, 7, 13-15, 17-20, 22-28 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Hawkins et al. US Patent 6,493,464, filed 9/8/1997, patented 12/10/2002 (hereinafter Hawkins).

14. **Regarding independent claim 1**, Hawkins discloses a computerized method of receiving and recognizing handwritten user input as a symbol to determine a shorthand type of the symbol. Hawkins recites: *"the computer system could be programmed to allow a user to define new input strokes, and/or to associate symbols, characters, or even complete words or phrases, to a combination of input strokes. Thus, a user-maintained glossary could be built where the user could define the sequences of characters--or symbols, text, or program functions--to be associated with a stroke, a multi-stroke combination, or sequence of multiple stroke combinations"* (column 12, lines 2-11).

15. **Regarding dependent claim 2**, Hawkins discloses the shorthand types to be text expansion and program. Hawkins discloses text expansion in figure 9, where the user input of "h" is expanded to "sh". Hawkins discloses programs associated to a shorthand type. Hawkins recites: *"a user-maintained glossary could be built where the user could define the sequences of characters--or symbols, text, or program functions--to be associated with a stroke, a multi-*

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*stroke combination, or sequence of multiple stroke combinations"* (column 12, lines 6-11).

16. **Regarding dependent claim 4**, Hawkins discloses applying the expansion associated with the symbol in Figure 9, where in response to the user writing "h", the display shows "sh".
17. **Regarding dependent claim 7**, Hawkins discloses displaying expanded test, implementing a function or launching a program dependent upon the shorthand type. Hawkins recites: *"a user-maintained glossary could be built where the user could define the sequences of characters--or symbols, text, or program functions--to be associated with a stroke, a multi-stroke combination, or sequence of multiple stroke combinations"* (column 12, lines 6-11).
18. **Regarding dependent claim 13**, Hawkins discloses the invention as computer readable medium. Hawkins recites: *"The computer program is stored on a storage media or device readable by a computer, and configures and operates the computer when the storage media or device is read by the computer, the computer being operated to determine, recognize, classify, and sometimes display handwritten strokes"* (column 7, lines 5-10).
19. **Regarding independent claim 14**, Hawkins discloses receiving a handwritten user input including a first and a second input, and determining if the first input is associated with the second input. Hawkins recites: *"The present invention defines three different categories of pen strokes: (1) pre-*



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*character modifier strokes, (2) character or symbol strokes, and (3) post-character modifier strokes*" (column 4, lines 61-64). If the system described by Hawkins receives a first user input (either a pre-character modifier or a character/symbol stroke) and then a second user input (either a character/symbol stroke or a post character modifier stroke), then the system would determine the association between the user input strokes. Under certain conditions the strokes would be determined to be associated (i.e. if the first input is a pre-character modifier and the second is a character/symbol, or if the first input is a character/symbol and the second input is a post-character modifier). Under certain conditions the strokes would be determined to not be associated (i.e. when the strokes are both character/symbols).

Hawkins discloses second determining whether the first handwritten user input represents a shorthand entry if the first handwritten user input is not associated with the second handwritten user input, and applying the text expansion associated with the first input. As described in the previous paragraph, under certain conditions the strokes would be determined to not be associated (i.e. when the strokes are both character/symbols). In this case the character/symbol input would be interpreted independent of the other input. If the input were a symbol, then the system would determine the *"characters--or symbols, text, or program functions--to be associated with a stroke, a multi-stroke combination, or sequence of multiple stroke combinations"* (column 12, lines 2-11).

20. **Regarding dependent claim 15**, Hawkins discloses the first handwritten user input as a single word. Hawkins recites: *"the computer system could be programmed to allow a user to define new input strokes, and/or to associate symbols, characters, or even complete words or phrases, to a combination of input strokes"* (column 12, lines 3-6).
21. **Regarding dependent claim 17**, Hawkins discloses comparing the first handwritten user input with a predetermined set of symbols and determining the text expansion. Hawkins recites: *"the computer system could be programmed to allow a user to define new input strokes, and/or to associate symbols, characters, or even complete words or phrases, to a combination of input strokes. Thus, a user-maintained glossary could be built where the user could define the sequences of characters--or symbols, text, or program functions--to be associated with a stroke, a multi-stroke combination, or sequence of multiple stroke combinations"* (column 12, lines 2-11).
22. **Regarding dependent claim 18**, Hawkins discloses the first user input is a symbol for a program. Hawkins recites: *"the computer system could be programmed to allow a user to define new input strokes, and/or to associate symbols, characters, or even complete words or phrases, to a combination of input strokes. Thus, a user-maintained glossary could be built where the user could define the sequences of characters--or symbols, text, or program functions--to be associated with a stroke, a multi-stroke combination, or sequence of multiple stroke combinations"* (column 12, lines 2-11).

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23. **Regarding dependent claims 19 and 20**, Hawkins discloses simultaneously displaying the first and second handwritten user inputs in Figure 7B, where a first input is a character, and the second input is the character accent.
24. **Regarding dependent claims 22 and 23**, Hawkins discloses determining if first and second handwritten user inputs are associated to one another as described above. Hawkins discloses applying expansions and programs to the user inputs as described above.
25. **Regarding dependent claims 24 and 25**, Hawkins discloses determining the user input in response to the user input having stopped, or waiting a fixed period of time. Hawkins recites: *"In the past, recognition systems have solved this ambiguity by waiting until the user stopped writing, or by having a fixed delay period, after which characters were recognized"* (column 3, lines 17-20).
26. **Regarding dependent claim 26**, Hawkins discloses the invention as computer readable medium. Hawkins recites: *"The computer program is stored on a storage media or device readable by a computer, and configures and operates the computer when the storage media or device is read by the computer, the computer being operated to determine, recognize, classify, and sometimes display handwritten strokes"* (column 7, lines 5-10).
27. **Regarding independent claim 27**, the claim is substantially the same as claims 1, and is rejected using the same rationale. Additionally claim 27 is

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directed toward the shorthand depending on the context of the user input.

Hawkins discloses this. Hawkins recites: "*the user could also define new strokes within a table (or other data structure) and assign context to each such stroke*" (column 12, lines 11-13).

28. **Regarding independent claim 28**, the claim is substantially the same as claim 22, and is rejected using the same rationale.

29. **Regarding dependent claim 34**, Hawkins discloses the invention as computer readable medium. Hawkins recites: "*The computer program is stored on a storage media or device readable by a computer, and configures and operates the computer when the storage media or device is read by the computer, the computer being operated to determine, recognize, classify, and sometimes display handwritten strokes*" (column 7, lines 5-10).

### ***Claim Rejections - 35 USC § 103***

30. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

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31. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins.

32. **Regarding dependent claim 21**, Hawkins discloses receiving handwritten user input, a first and second determining step, and applying an extension. Hawkins fails to disclose determining whether a total handwritten user input word count is equal to one, and if so then determining that the first handwritten user input is not associated with any other handwritten user input. However, Hawkins teaches the determining of associations of first and second user inputs as described above. Hawkins further teaches various user inputs that would allow a determination to be made as to whether the word count was equal to one. For instance, Hawkins' Figure 5A shows typical end of word indicators, including "space" and "CRLF" symbols that would indicate that a complete word had been entered. Therefore, it would have been obvious, to one of ordinary skill in the art, at the time the invention was made, to use a non-printing character symbol to indicate the user had entered a complete word in order to allow the system to be used for word processing functions.


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***Conclusion***

33. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory J. Vaughn whose telephone number is (571) 272-4131. The examiner can normally be reached Monday to Friday from 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen S. Hong can be reached at (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Gregory J. Vaughn  
May 12, 2006